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PTO/SB/08A (10-01)

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 2

Complete if Known

Application Number 09/996,020
Filing Date 11/27/2001
First Named Inventor Mazen Hanna
Art Unit 1754
Examiner Name J. Strickland
Attorney Docket Number 0108.11

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
ll	AA	US-4361281	11/30/1982	Koppehele et al.	
ll	AB	US-4582731	04/15/1986	Smith	
ll	AC	US-4702799	10/27/1987	Tuot	
ll	AD	US-4737384	04/12/1988	Murthy et al.	
ll	AE	US-4923720	05/08/1990	Lee et al.	
ll	AF	US-4970093	11/13/1990	Sievers et al.	
ll	AG	US-4977785	12/18/1990	Willoughby et al.	
ll	AH	US-5009367	04/23/1991	Nielsen	
ll	AI	US-5043280	08/27/1991	Fischer et al.	
ll	AJ	US-5106659	04/21/1992	Hastings et al.	
ll	AK	US-5221731	06/22/1993	Weymans et al.	
ll	AL	US-5229486	07/20/1993	Paul et al.	
ll	AM	US-5437798	08/01/1995	LaRoche et al.	
ll	AN	US-5548004	08/20/1996	Mandel et al.	
ll	AO	US-5554382	09/10/1996	Castor	
ll	AP	US-5707634	01/13/1998	Schmitt	
ll	AQ	US-6063910	05/16/2000	Debenedetti et al.	
ll	AR	US-5639441	06/17/1997	Sievers et al.	
ll	AS	US-5708039	01/13/1998	Daly et al.	
ll	AT	US-5716558	02/10/1998	Nielsen et al.	

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Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
ll	AA	DE 4041563				
ll	AX	DE B1078283				
ll	AY	EP 0322687				
ll	AZ	EP 0542314				
ll	BA	JP 1176437				
ll	BB	JP 5057166				
ll	BC	WO 90/11139				
ll	BD	WO 90/03782				

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Sheet 2 of 2

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Application Number	09/996,020
Filing Date	11/27/01
First Named Inventor	Mazen Hanna
Art Unit	1754
Examiner Name	J. Strickland
Attorney Docket Number	0108.10



U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. 1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code 2 (if known)			
ED	AU	US-5725836	03/10/1998	Rouanet et al.	
ST	AV	US-5770559	06/23/1998	Manning et al.	
TV	BO	US-4,919,853	4/24/1990	Alvarez et al.	
W	BR	US-4,328,107	5/4/1982	Wright	
		US-			
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Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Applicati n Number	09/996.020
		Filing Date	11/27/2001
		First Named Inventor	Mazen Hanna
		Group Art Unit	1754
		Examiner Name	J. Strickland
		Attorney Docket Number	0108.11
Sheet	1	of	



OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
EV	BE	DEBENEDETTI ET AL., "Application of Supercritical fluids for the production of sustained delivery devices," J. Cont. Rel, No. 24, p. 27-44,	
VO	BF	DIXON ET AL., "Polymeric Materials formed by Precipitation with a Compressed Fluid Antisolvent," AIChE Jour., Vol. 39 (No. 1), p. 127-139,	
dl	BG	TOM ET AL., 'Applications of Supercritical Fluids in the Controlled Release of Drugs,' ACS Symposium Series, Supercritical Fluid Engineering Science Fundamentals and Applications, Chpt 19, 1993 p. 243,	
4C	BH	LARSON ET AL., "Evaluation of Supercritical Fluid Extraction in the Pharmaceutical Industry," Biotech. Progress, Vol. 2 (No. 2), p. 73-82,	
24	BI	Ullman's Encyclopedia of Industrial Chemistry, Vol B2, Fifth Ed., pp. 7-21-22	
44	BJ	TOM ET AL., "Particle Formation with Supercritical Fluids - A Review", J. Aerosol. Sci., 1st ed. Vol. 22 (No. 5), P 555-584	
44	BK	TOM ET AL., "Rapid Expansion of Supercritical Solution"	
04	BL	GALLAGHER ET AL., "Gas AntiSolvent," ACS Symp. Ser. No. 406, p 334.	
44	BM	LAHIERE ET AL., "Ind. Eng. Chem Res., No. 26, p. 2086-2092	
44	BN	STAHL ET AL., "Dense Gas Extraction on a Laboratory Scale: A Survey of Some Recent Results," Fluid Phase equilibria, No. 10, p.269	
44	BO	DILL et al., Ann. Rev. Biochem, No. 60, p. 79-5825	

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Sheet 1 of 1

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Application Number 09/996,020
 Filing Date 11/27/2001
 First Named Inventor Mazen Hanna
 Group Art Unit 1754
 Examiner Name J. Strickland
 Attorney Docket Number 0108.11

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
UC	BP	CALLAGHAN ET AL., ""Antimicrobial AGents and Chemotherapy", " p. 283-288,	
UG	BS	SANG-DO YEO ET AL., "Formation of Microparticulate Protein Powders Using a Supercritical Fluid Antisolvent," Biotech Bioeng, p. 341-346,	
UQ	BT	CHIEHMING CHANG ET AL., "Separation of Beta Cratene Mixtures Precipitated from Liquid Solvents with High-Pressure CO2," Biotech. Prog., p. 274-278,	
UJ	BU	J. BLEICH ET AL., "Aerosol Solvent Extraction System - a New Microparticle Production Technique," Int. J. of oPharm, p. 111-117,	
UW	BV	TOM ET AL., "Supercritical Fluid Engineering Science," American Chemical Society,	

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SHEET 1 OF 2

Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. 0108.11	SERIAL NO. 09/996,020
LIST OF REFERENCES CITED BY APPLICANT				APPLICANT M. H. Hanna et al.	GROUP 1754
				FILING DATE 11/27/2001	
EAQ	Chang et al., "Separation of B-Carotene Mixtures Precipitated from Liquid Solvents with High-Pressure CO ₂ ," Biotechnol. Prog., No. 7, pp. 275-278 (1991).				
AAR	Gallagher et al., "Gas Anti-Solvent Recrystallization of RDX: Formation of Ultra-fine Particles of a Difficult-to-Comminute Explosive," The Journal of Supercritical Fluids, No. 5, pp. 130-142 (1992).				
AAS	Matson et al., "Production of Powders and Films by the Rapid Expansion of Supercritical Solutions," Journal of Materials Science, No. 22, pp.1919-1928 (1987).				
AAT	Mohamed et al., "Solids Formation After the Expansion of Supercritical Mixtures," Supercritical Fluid Science and Technology, Chapter 23, American Chemical Society, pp. 355-378 (1989).				
AAU	Barj et al., "Submicronic MgAl ₂ O ₄ Powder Synthesis in Supercritical Ethanol," Journal of Materials Science, No. 27, pp. 2187-2192 (1992).				
AAV	Chhor et al., "Synthesis of Submicron TiO ₂ Powders in Vapor, Liquid and Supercritical Phases, a Comparative Study," Materials Chemistry and Physics, Vol. 32, pp. 249-254 (1992).				
AAW	Francis, "Ternary Systems of Liquid Carbon Dioxide," Journal of Physical Chemistry, Vol. 58, pp. 1099-1114 (1954).				
AAZ	Yeo et al., "Formation of Microparticulate Protein Powders Using a Supercritical Fluid Antisolvent," Biotechnology and Bioengineering, Vol. 41, pp. 341-346 (1993).				
AAAB	Randolph et al., "Sub-Micrometer-Sized Biodegradable Particles of Poly (L-Lactic Acid) via the Gas Antisolvent Spray Precipitation Process," Biotechnol. Prog., Vol. 9, no. 4, pp. 429-435 (1993).				
AAAC	Debenedetti et al., "Supercritical Fluids: A New Medium for the Formation of Particles of Biomedical Interest," Proceed. Intern. Symp. Control. Rel. Bioact. Mater., 20, pp. 141-142 (1993).				
AAAD	Donsi et al., "Micronization by Means of Supercritical Fluids: Possibility of Application to Pharmaceutical Field," Pharm. ACTA HELV. 66, Nr. 5-6, pp. 170-173 (1991).				
AAAE	Cygnarowicz et al., "Design and Control of a Process to Extract B-Carotene with Supercritical Carbon Dioxide," Biotechnol. Prog. Vol. 6, pp. 82-91 (1990).				
AAAF	Chen et al., "Supercritical Antisolvent Fractionation of Polyethylene Simulated with Multistage Algorithm and SAFTEquation of State: Staging Leads to High Selectivity Enhancements for Light Fractions," Ind. Eng. Chem. Res., Vol. 33, pp. 308-310 (1994).				
AAAG	Loth et al., "Properties and Dissolution of Drugs Micronized by Crystallization from Supercritical Gases," International Journal of Pharmaceutics, Vol. 32, pp. 265-267 (1986).				
AAAH	Bodmeier et al., "Polymeric Microspheres Prepared by Spraying into Compressed Carbon Dioxide," Pharmaceutical Research, Vol. 12, No. 8, pp. 1211-1217 (1995).				
AAAI	Tom et al., "Formation of Bioerodible Polymeric Microspheres and Microparticles by Rapid Expansion of Supercritical Solutions," Biotechnol. Prog., Vol. 7, pp. 403-411 (1991).				
AAAJ	Sanchez et al., "Development of Biodegradable Microspheres and Nanospheres for the Controlled Release of Cyclosporin A," International Journal of Pharmaceutics, Vol. 99, pp. 263-273 (1993).				
AAAK	Julienne et al., "Preparation of Poly (D, L-Lactide/Glycolide) Nanoparticles of Controlled Particle Size Distribution: Application of Experimental Designs," Drug Development and Industrial Pharmacy, Vol. 18, N. 10, pp. 1063-1077 (1992).				
AAAL	Phillips et al., "Rapid Expansion from Supercritical Solutions: Application to Pharmaceutical Processes," International Journal of Pharmaceutics, Vol. 94, pp. 1-10 (1993).				
Examiner		Date Considered 10/7/03			

